<u>REMARKS</u>

I.   INTRODUCTION

In response to the Office Action dated October 10, 2007, the specification has been amended. Entry of these amendments, and re-consideration of the application, as amended, is requested.

II.   AMENDMENTS

The Applicant has amended the specification to update the cross reference presented in the original application as filed. The Examiner is encouraged to review the file wrapper for both the issued and pending cases.

III. STATUS OF CLAIMS

Claims 1-19 are pending in the application.

Claims 1-12 were rejected under 35 U.S.C. § 103(a) as unpatentable over Szymanski, U.S. Patent No. 6,148,081 (Szymanski) in view of Liao et al., The Split and Merge Protocol for Interactive Video-on-Demand (Liao) and in further view of Spies, U.S. Patent No. 6,055,314 (Spies).

Claims 13 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Szymanski in view of Liao and in further view of Ma et al., Multicast Video on Demand Services (Ma).

Claims 14 and 15 were rejected under 35 U.S.C. §103(a) as being obvious in view of Szymanski in view of Liao, in further view of Ma and in further view of Spies.

Claims 17-19 were rejected as unpatentable over Szymanski in view of Liao, in further view of Ma, and in further view of Ullrich

IV.   GROUNDS OF REJECTION TO BE REVIEWED

Whether claims 1-12 are patentable under 35 U.S.C. § 103(a) over Szymanski, U.S. Patent No. 6,148,081 (Szymanski) in view of Liao et al., The Split and Merge Protocol for Interactive Video-on-Demand (Liao) and in further view of Spies, U.S. Patent No. 6,055,314 (Spies).

Whether claims 13 and 16 are patentable under 35 U.S.C. §103(a) as being unpatentable over Szymanski in view of Liao and in further view of Ma et al., Multicast Video on Demand Services (Ma).

Whether claims 14 and 15 are patentable under 35 U.S.C. §103(a) as being obvious in view

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of Szymanski in view of Liao, in further view of Ma and in further view of Spies.

Whether claims 17-19 are patentable under 35 U.S.C. § 103(a) over Szymanski in view of Liao, in further view of Ma, and in further view of Ullrich

V.   ARGUMENT

A.   Claim Objections

In paragraph 1, the Final Office Action objects to the claims because it notes that the "... applicant is required to distinctly locate the location of support from the disclosure in respect to each newly added claim in order to verify that new subject matter has been added."

The Applicant is aware of no such requirement, and respectfully request that the Examiner indicate where such requirement may be found in the MPEP. The Examiner is also invited to examine the preamble of claim 1, and paragraph [0029].

B.   Claim Rejections

1.   The References

a)   *The Szymanski Reference*

U.S. Patent No. 6,148,081, issued November 14, 2000 to Szymanski discloses a security model for interactive television applications. The system and method is implemented in an interactive television system and restricting or controlling the access rights of interactive television applications and carousels. The system broadcasts modules from a broadcast station to a plurality of receiving stations, which execute applications containing the modules. In one embodiment, the applications utilize a credential consisting of a producer identification number (ID) and an application ID for each of the grantor and grantee applications, an expiration date, a set of permission data, a producer certificate and a signature. An application requesting access and a carousel granting access may be identified by respective producer and application IDs. The credential utilizes public key encryption to ensure the integrity of the credential. The producer and application IDs may be replaced with wildcards so that rights may be granted to a group of producers or applications.

b)   *The Liao Reference*

The document "The Split and Merge Protocol for Interactive Video-on-Demand" authored by Wanjiun Liao and Victor O.K. Li describes a system wherein when a user selects VCR-like user

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functions from a batch video stream, the user is temporarily assigned to a new video stream that the user can used to perform any desired interactions. When the user is done, they are merged back into the nearest ongoing video stream.

c) *The Spies Reference*

U.S. Patent No. 6,055,314, issued April 25, 2000 to Spies discloses a system and method for secure purchase and delivery of video content programs. The system and method allows secure purchase and delivery of video content programs over various distribution media, including distribution networks and digital video disks, includes an integrated circuit card (e.g., a smart card, PCMCIA card) which is configured to store decryption capabilities for related video programs. The decryption capabilities are initially kept in a secure store at a video merchant. When a purchaser orders a particular video program, the decryption capabilities for that program are downloaded to the IC card, either at the merchant premises or over a distribution network. The video content program is distributed in encrypted format via the distribution media to the purchaser. The IC card uses the decryption capabilities to at least partly decrypt the video content program without exposing the decryption capabilities.

d) *The Ma Reference*

"Multicast Video-on-Demand Services" by Huadong Ma and Kang G. Shin discusses recent progress in multicast VOD systems.

2.   Claims 1-12 are Patentable Under 35 U.S.C. § 103(a) over Szymanski in view of Liao and further in view of Spies.

In paragraphs (3)-(4), the Office Action rejected claims 1-12 under 35 U.S.C. § 103(a) as unpatentable over Szymanski, U.S. Patent No. 6,148,081 (Szymanski) in view of Liao et al., The Split and Merge Protocol for Interactive Video-on-Demand (Liao) and in further view of Spies, U.S. Patent No. 6,055,314 (Spies). The Applicant traverses these rejections.

<u>With Respect to Claim 1</u>: Claim 1 recites:

> *A method of providing a video program in response to a demand by a subscriber, wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated from a previous transmission by a predetermined period of time, the method comprising the steps of:*
> *delivering a first unencrypted portion of at least one video program available for viewing on demand;*
> *storing the first unencrypted portion of the at least one video program as unencrypted data on a Digital Video Recorder (DVR);*

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offering the video program for purchase by the subscriber;
accepting a subscriber demand to purchase the complete video program;
retrieving the stored first unencrypted portion of the at least one video program after accepting a
subscriber demand to purchase the complete video program;
authorizing capture and decryption of a remaining portion of purchased video program;
switching from the stored first unencrypted portion of the at least one video program to the remaining
*portion of the purchased video program.*

Szymanski Does Not Disclose the Step of "Delivering a First Unencrypted Portion of at
Least One Video Program Available for Viewing On Demand": In the first Office Action,
Szymanski discloses the step of "delivering a first unencrypted portion of at least one video program
available for viewing on demand" because it recites "The interactive television signal includes an
interactive portion consisting of an application code or control information, as well as an audio-
video portion consisting of a television program." However, nothing in delivering a first
unencrypted portion of at least one video program available for viewing on demand discloses that
the "interactive portion" is "a video program available for viewing on demand". Indeed, Szymanski
discloses nothing at all about video on demand ... it is directed to interactive television.

The Final Office Action answers:

"The examiner disagrees as 'interactive television' is a form of video on demand ..."

Interactive television is not video on demand. Broadly defined, "interactive television"
might include any interaction with the television (including turning it on and off and changing the
channel). Therefore, strictly speaking, video on demand is at best a *subset* of interactive television,
and just because a reference discloses interactive television does not mean it discloses video on
demand. In other words:

This:

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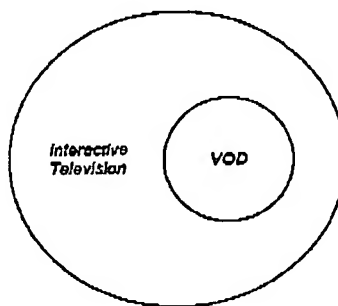
Not these:
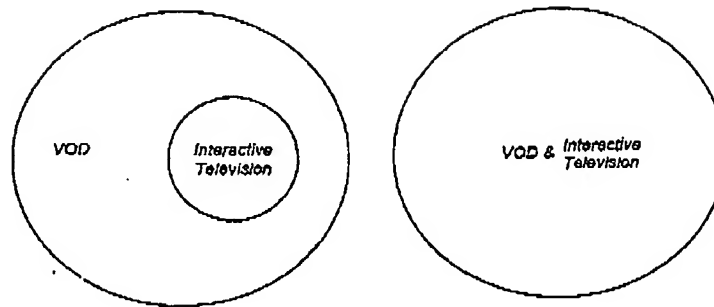
Therefore, a reference that discloses "interactive TV" does not inherently disclose video on demand. Since Szymanski itself does not disclose video on demand, the rejection must be reversed

Szymanski Does Not Disclose the Step of Storing the First Unencrypted Portion of the at Least One Video Program as Unencrypted Data on a Digital Video Recorder (VCR) : The first Office Action also indicated that Szymanski discloses the step of "storing the first unencrypted portion of the at least one video program as unencrypted data on a Digital Video Recorder (VCR)" because it discloses "The set-top box receives the signal transmitted by the broadcast server provider, separates the interactive portion from the audio-video portion and decompresses the respective portions of the signal." However, Szymanski does not disclose storing anything in a DVR, as recited in claim 1.

The Final Office Action answers:

> "... it is understood that the DVR/set top box stores part of the video program in memory (i.e. 'RAM may include memory units which are static, dynamic, volatile or non-volatile, as required to support the functions of a set top box') prior to transmitting it for display (i.e. "the term set top box is used herein, it is understood that this term refers to any receiver or processing unit for receiving and processing a transmitted signal and conveying the processed signal to a television or other monitor")

Claim 1 recites a digital video recorder, not simply a video memory. The Applicant's specification is replete with references to the DVR which make it clear that it cannot be interpreted as simply a video memory used in a set-top box as described in the Szymanski reference, and one of ordinary skill in the art at the time of the Applicant's invention would certainly have recognized the difference between a set-top box video buffer and a DVR.

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<u>Szymanski Does Not Disclose the Step of "Offering the Video Program for Purchase by the Subscriber"</u>: The first Office Action also indicated that Szymanski discloses the step of "offering the video program for purchase by the subscriber" because it recites "the carousel may comprise an electronic commerce application which allows interactive television users to make purchases via credit card transactions." However, this does not disclose offering <u>the</u> video program (recited in the first clause) for purchase by the subscriber, but rather allows users to make other purchases with an electronic commerce application. In the system disclosed by Szymanski, it would plainly make no sense to offer a video program for purchase when it has already been received.

The final Office Action answers:

> "In addition, it is implied from <u>Szymanski</u> that interactive television would include making purchases which include video content (i.e. "an electronic commerce application which allows interactive television users to make purchases via credit card transactions"; "The credential can be created by secure means so that it can be determined at run time whether the credential was in fact created by the producer of the credit card application") [citation omitted] as the creation of credentials for a credit card application would imply the request of a purchase and an electronic commerce application would offer/allow users to make purchases based on a selection.

It appears as if the final Office Action has improperly applied the *inherency doctrine*. Inherency "may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." <u>Continental Can Co. v. Monsanto Co.</u>, 948 F.2d 1264, 1269(Fed. Cir. 1991). Instead, to establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. <u>Continental Can Co.</u>, 948 F.2d at 1268.

There is nothing about <u>Szymanski</u> that *requires* that purchases include video content. Hence, reliance on the *inherency doctrine* is misplaced. Further, as the Applicant has pointed out, <u>Szymanski</u> does not disclose offering <u>the</u> video program (recited in the first clause) for purchase by the subscriber, but rather allows users to make other purchases with an electronic commerce application. In the system disclosed by Szymanski, it would plainly make no sense to offer a video program for purchase when it has already been received.

<u>Szymanski Does not Disclose the Step of "Accepting a Subscriber Demand to Purchase the Complete Video Program</u>: Finally, the first Office Action indicated that Szymanski discloses the step of "accepting a subscriber demand to purchase the <u>complete video program</u>" by disclosing "The credential can be created by secure means so that it can be determined at run time whether the credential was in fact created by the producer of the credit card application."

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The Applicant pointed out that the cited portion of the Szymanski reference does not appear to disclose anything even remotely related to a subscriber demand to purchase "the complete video program." Szymanski assumes that the user has already access to the video program ... the other "portion" referred to in Szymanski is not the remainder of the media program, but rather, a portion that is used to support interactive TV purchases.

The final Office Action did not address this issue.

<u>Liao Does not Disclose "Retrieving the Stored First Unencrypted Portion of the at Least One Video Program After Accepting a Subscriber Demand to Purchase the Complete Video Program"</u>: The first Office Action indicates that Liao discloses "retrieving the stored first unencrypted portion of the at least one video program after accepting a subscriber demand to purchase the complete video program" by reciting "With VOD services, customers may select programs from massive, remote video archives, view them when they wish, and interact with the programs using VCR-like functions, such as fast forward and rewind."

The Applicant pointed out, however, that claim 1 recites retrieving "the stored first unencrypted portion of the video program" ... that which was delivered in the first clause. The data received in the Liao reference is not locally stored .... instead, it is retrieved from a video server.

The final Office Action does not address this issue.

<u>Liao Does Not Disclose "Switching from the Stored Unencrypted Portion of the at Least One Video Program to the Remaining Portion of the Purchased Video Program"</u>: The Office Action indicates that Liao discloses "switching from the stored unencrypted portion of the at least one video program to the remaining portion of the purchased video program" by reciting "When a user is in a batch initiates a user interaction, the protocol splits off the interactive user from the original batch and temporarily assigns that user to a new video stream." This is also incorrect. Liao teaches switching from a batched video stream to a new video stream upon user interaction. Claim 1 recites a system in which the user *starts* by playing the program locally (certainly non-batch) and switches to what might be analyzed as a batch video stream ... not the other way around.

Again, the final Office Action does not address this issue.

<u>There is No Motivation to Modify Szymanski as Described in Liao</u>: Finally, the Applicant also does not agree with the cited motivation for modifying Szymanski as described in Liao. First, Szymanski can "play the program content as requested by the subscriber" without any modification. Second, even when combined, neither discloses the notion of apriori storage of an unencrypted

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program, offering that program for purchase by the subscriber and retrieving the unencrypted portion of the video program in response to a subscriber demand.

The final Office Action did not address this issue.

Spies does not Disclose "Authorizing Capture and Decryption of a Remaining Portion of the Video Program": The first Office Action argues that Spies discloses "authorizing capture and decryption of a remaining portion of the video program" by reciting "The video content provider 22 maintains a video program storage 30 which keeps the video content programs and program keys database 32 which stores cryptographic keys that correspond to associated video content programs. There is one key for each video content program."

The Applicant pointed out that even combined with Szymanski and Liao, Spies does not disclose the notion of a storing an unencrypted video portion on a DVR and authorizing the authorizing the capture and decryption of the remaining (decrypted) portion upon user command.

The final Office Action did not address this issue.

Claim 5 is patentable for the same reasons.

3.   Claims 13 and 16 are Patentable Under 35 U.S.C. § 103(a) over Szymanski in view of Liao and further in view of Ma.

With Respect to Claim 13: Claim 13 recites:

An apparatus for providing a program in response to a subscriber demand comprising:
a digital video recorder being an integrated receiver/decoder having digital video recording capabilities;
a first unencrypted portion of at least one program stored on the digital video recorder;
an offer to purchase at least one program;
means for accepting the offer to purchase the at least one program;
means for retrieving the first unencrypted portion from storage while retrieving the remaining portion of the at least one program on the digital video recorder;
means for splicing the first unencrypted portion of the at least one program with the remaining portion of the program to define a complete program;
the complete program stored on the digital video recorder.

In his first response, the Applicant pointed out that (1) Szymanski does not disclose storing anything in a DVR (2) Szymanski does not disclose a "an offer to purchase at least one program" but instead the purchase of other e-commerce items, and (3) Szymanski fails to disclose a means for splicing a first encrypted portion of the at least one program with the remaining portion of the program to define a complete program (the cited portion of Szymanski refers only to the reconstruction of television programs and interactive applications from the received packetized

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signal ... this has nothing to do with "splicing a first encrypted portion of the at least one program with the remaining portion of the program to define a complete program.")

Further, although the Office Action acknowledged that the Szymanski reference does not disclose "means for retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder", it asserted that Liao does because it recites "With VoD services, customers may select programs for massive, remove video archives, view them when they wish, and interact with the programs using VCR-like functions, such as fast forward and rewind."

With regard to the "means for retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder" feature, the first Office Action asserted that Liao does because it recites "With VoD services, customers may select programs for massive, remove video archives, view them when they wish, and interact with the programs using VCR-like functions, such as fast forward and rewind."

The Applicant pointed out that Liao does not disclose a digital video recorder at all, and the cited passage of Liao does not disclose "retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder" as claimed. Instead, it merely discloses a VoD service obtained by retrieving programs from remote video archives.

The Final Office Action responded with the same argument presented in rejecting claim 1:

> The applicant's arguments recite, "Szymanski does not disclose storing anything in a DVR" and "Szymanski does not disclose an offer to purchase at least one program7" and "Szymanski also fails to disclose a means for splicing a first encrypted portion of the at least one program with the remaining portion of the program to define a complete program" and "Szymanski reference does not disclose means for retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder" and "Liao does not disclose a digital video recorder at all.. . does not disclose retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder." However, the examiner disagrees as "interactive television" is a form of video on demand, where it is understood that the DVR/set top box stores part of the video program in memory (i.e. "RAM may include memory units which, are static, dynamic, volatile or non-volatile, as required to support the functions of the set top box") [Szymanski column 6 lines 6-9] prior to transmitting it for display (i.e. "the term set top box is used herein, it is understood that this term refers to any receiver or processing unit for receiving and processing a transmitted signal and conveying the processed signal to a television or other monitor") [Szymanski column 6 lines 20-25]. In addition, it is implied from Szymanski that interactive television would include making purchases which include video content (i.e. "an electronic commerce application which allows interactive television users to make purchases via credit card transactions"; "The credential can be created by

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secure means so that it can be determined at run time whether the credential was in fact created by the producer of the credit card application") [Szymanski column 9. lines 10-13 & 26-30] as the creation of credentials for a credit card application would imply the request of a purchase and an electronic commerce application would offer/allow users to make purchases based on a selection.

The foregoing does not address the arguments raised by the Applicant in his first response. In particular, the final Office Action does not suggest how Liao discloses "retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder" nor does suggest how Szymanski discloses the claimed "means for splicing".

Accordingly, the Applicant traverses and incorporating their previous response to the rejection of claim 13.

4.   Claims 14 and 15 are Patentable Under 35 U.S.C. § 103(a) over Szymanski in view of Liao and Ma and further in view of Spies.

Claims 14 and 15 recite the features of claim 13 and are patentable on the same basis.

5.   Claims 17-19 are Patentable Under 35 U.S.C. § 103(a) over Szymanski in view of Liao and Ma and further in view of Ullrich.

Claims 17-19 were rejected as unpatentable over Szymanski in view of Liao, in further view of Ma, and in further view of Ullrich. Claim 13 recites:

> *An apparatus for providing a program in response to a subscriber demand comprising:*
> *a digital video recorder being an integrated receiver/decoder having digital video recording capabilities;*
> *a first unencrypted portion of at least one program stored on the digital video recorder;*
> *means for accepting an offer to purchase the at least one program;*
> *means for retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder;*
> *means for splicing the first unencrypted portion of the at least one program with the remaining portion of the at least one program to define a complete program;*
> *the complete program stored on the digital video recorder.*

Claim 17 adds:

> *wherein the at least a portion of the program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated from a previous transmission by a predetermined period of time.*

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The final Office Action relies on Szymanski for the teaching of:

> *a digital video recorder being an integrated receiver/decoder having digital video recording capabilities;*
>
> *a first unencrypted portion of at least one program stored on the digital video recorder;*
>
> *means for accepting an offer to purchase the at least one program;*
>
> *means for splicing the first unencrypted portion of the at least one program with the remaining portion of the at least one program to define a complete program;*

Szymanski does not teach a DVR, nor the storage of a first encrypted portion of a program in a DVR, nor a means for splicing a first unencrypted portion of the program with the remaining portion of the program to define a complete program. At best, it teaches the transmission and use of applications that are used for interactive television.

Claim 17 recites the additional feature that the program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated from a previous transmission by a predetermined period of time.

Recognizing that the combination of Szymanski, Liao, and Ma do not disclose this feature, the Final Office Action relies instead on a fourth reference, Ullrich. Why would one of ordinary skill in the art modify Szymanski (which teaches the downloading of applications to support interactive applications) to download those interactive applications piecemeal as described in Ullrich? According to the Final Office Action:

"for the purpose[s] of the exhibition of different programming"

Respectfully, the Applicant does not understand how different programming is related to the Applicant's invention or any of the cited references.
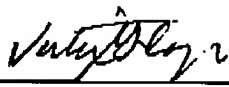
Claims 18 and 19 depend on claim 17 and are patentable for the same reasons.

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VI.   CONCLUSION

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicant's undersigned attorney.

Respectfully submitted,

Date: 12/10/07

By: _____

Name: Victor G. Cooper
Reg. No.: 39,641

The DIRECTV Group, Inc.
RE/R11/A109
2250 E. Imperial Highway
P. O. Box 956
El Segundo CA 90245

Telephone No. (310) 964-4615

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